

424501, 424502, 424503, 448566, 448567, 448568, 448569, 448570, 424504, 424505, 424506, 424507, 424508, 424509, 424510, 424511, 448571, 424512, 424513, 424514, 424515, 448572, 426007, 426008, 426009, 426010, 449396, 462027, 449397, 449398, 426011, 426012, 449399, 449400, 462028, 449401, 462029, 449402, 426013, 426014, 426015, 426016, and 426017.

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cont

19. (Amended) A collection of non-identical nucleic acid molecules capable of detecting polymorphisms in an *Arabidopsis thaliana* mapping population, wherein said collection of non-identical nucleic acid molecules is capable of detecting polymorphisms selected from the group consisting of Single Nucleotide Polymorphisms 466799, 471736, 459697, 459698, 459699, 459700, 459701, 445015, 459702, 459703, 445016, 445017, 461062, 447523, 461063, 447524, 447525, 461064, 461065, 447526, 461066, 450823, 450824, 450825, and 450826.

[Please add new claims 24-29 as follows:]

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24. (New) Computer readable medium having recorded thereon a set of polymorphisms wherein said polymorphisms are distributed throughout the genome of *Arabidopsis* at an average density of more than one polymorphism per about 100kb.

25. (New) The computer readable medium of claim 24, wherein said set of polymorphisms include Single Nucleotide Polymorphism 466799.

26. (New) The computer readable medium of claim 24, wherein said set of polymorphisms include Single Nucleotide Polymorphism 471736.

27. (New) A collection of non-identical nucleic acid molecules capable of detecting polymorphisms in an *Arabidopsis thaliana* mapping population, wherein said collection of non-identical nucleic acid molecules is capable of detecting polymorphisms distributed throughout

the genome of *Arabidopsis* at an average density of more than one polymorphism per about 100kb.

3D₂
28. (New) The collection of non-identical nucleic acid molecules capable of detecting polymorphisms in an *Arabidopsis thaliana* mapping population according to claim 27, wherein said collection of non-identical nucleic acid molecules to capable of detecting Single Nucleotide Polymorphism 466799.

29. (New) The collection of non-identical nucleic acid molecules capable of detecting polymorphisms in an *Arabidopsis thaliana* mapping population according to claim 27, wherein said collection of non-identical nucleic acid molecules to capable of detecting Single Nucleotide Polymorphism 471736.
